Amendment dated October 26, 2005   U.S.S.N. 09/887 824
In Response to Final Office Action mailed 07/27/05   005222.0(145

REMARKS

Claims 1-54 are pending. Claims 1-54 stand rejected by this Office Action. Claims 12, 15, 19, 21, and 32 are objected to.

Claim Objections

Claims 12, 15, 19, 21, and 32 are objected to because the claims have no ending periods.

Applicant has reviewed the list of claims contained in the Brief on Appeal fil ed on May 2, 2005 and the Request for Reconsideration filed on January 3, 2005. In both papers, claims 12, 15, 19, 21, and 32 contain ending periods. Moreover, claims 12, 15, 19, 21, and 32 in the list of claims, as included in this paper, contain ending periods. Thus, Applicant requests withdrawal of the claim objections.

Claim Rejections - 35 U.S.C. § 112

Claim 18 is rejected under 35 U.S.C. 112, second paragraph, as being inc efinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Specifically, claim 18 has improper multiple de endencies claimed in the conjunctive, rather than in the disjunctive.

Applicant has amended claim 18 to delete "including logic that creates a nultimedia presentation as recited in claim 11" in order to correct a typographical error. As amei ded, claim 18 does not have improper multiple dependencies and depends only on claim 10. Applicant requests reconsideration of claim 18.

Claim Rejections - 35 U.S.C. § 101

Claims 1-17 and 19-54 are directed to non-statutory subject matter.

The Office Action alleges that claims 1-9, 19-27, and 37-45 are not clai ned to be practiced on a computer and that the claims are not limited to practice in the technol gical arts. (Page 3, paragraph 5.) However, claims 1-9, 19-27, and 37-45 are claimed to be pra ticed on a computer and are thus limited to practice in the technological arts. For example, cl ims 1, 19, and 37 are directed to computer-implemented methods. Moreover claims 2-9, 20-27, and 38-45 ultimately depend from independent claims 1, 19, and 37.

The Office Action further alleges that "none of the claims are limited t) practical applications in the technological arts and that the 'Applicant's goal references are ji st abstract ideas'." (Page 3, paragraph 6.) However, the claimed invention of claims 1-54 is dir cted to the technical art of student training using a computer system. In accordance with MPEP 2106.IV.B.2.b.ii, the claimed invention is "limited to a practical application when the method, as claimed, produces a concrete, tangible, and useful result." The Federal Circuit in i s *AT&T v. Excel Communications, Inc.* decision affirms that an invention contains statutory subject matter, even if the subject matter is directed to a mathematical algorithm, if the invention provides a practical application that produces a useful, concrete, and tangible result. The Court affirms that (50 USPQ2d 1447, 1453 (Fed. Cir. 1999). Emphasis added.):

> As previously noted, we most recently addressed the "mathematical algorit m" exception in State Street. See 149 F.3d at 1373-75, 47 USPQ2d at 1600-02 In State Street, this court, following the Supreme Court's guidance in Di hr, concluded that "[u]npatentable mathematical algorithms are identifiable by showing they are merely abstract ideas constituting disembodied concept or truths that are not 'useful.' . . . [T]o be patentable an algorithm must be app ied in a 'useful' way." Id. at 1373, 47 USPQ2d at 1601. In that case, the clair ed data processing system for implementing a financial management struct are satisfied the 101 inquiry because it constituted a "practical application f a mathematical algorithm, . . . [by] produc[ing] 'a useful, concrete and tang ble result.'" Id. at 1373, 47 USPQ2d at 1601.

-10-

The claimed invention does <u>not</u> merely manipulate an abstract idea or perform a purely mathematical algorithm. For example, claim 1 is directed to a computer-implemented method that includes the features of "receiving a goal, **the goal being associated with a training objective of a student**" and "evaluating the progress toward the goal and provides feedback that further motivates accomplishment of **the goal for use in the presentation**." The claimed goal is not abstract but is "associated with a training objective of a student." Both features support training a student in a presentation, which is a practical application. All of the above features are practical applications limited to the technological arts. Similarly, independent claim 0 includes the features of "logic that receives a goal, the goal being associated with a training objective of a student" and "logic that evaluates the progress toward the goal and provides feedback that further motivates accomplishment of the goal for use in the presentation." Also, independent claim 19 includes the features of "presenting information indicative of a goal, the goal being associated with a training objective of a student" and "monitoring progress toward the goal and providing feedback that further motivates accomplishment of the goal in the simulated environment."

Independent claim 28 includes the features of "logic that presents information indicative of a goal, the goal being associated with a training objective of a student" and "logic that monitors progress toward the goal and provides feedback that further motivates accomplishment of the goal in the simulated environment." Also, independent claim 37 includes the features of "receiving indicia representative of a goal into a model, the goal being associated with a training objective of a plurality of students" and "monitoring progress of the plurality of students toward the goal," and "providing feedback that further assists the plurality of students in accomplishing the goal." Independent claim 38 similarly includes the features of "receiving an indicia representative of a plurality of goals into a model" and "monitoring progress of a student toward

-11-

the goal and providing feedback that assists the student in accomplishing the plurality of goals."

Also, independent claim 46 includes the features of "logic that receives indicia representative of a plurality of goals into a model, the plurality of goals being associated with a trainin ; objective of a student," "logic that monitors progress of the student toward one of the plurality of goals," and "logic that assists the student in accomplishing the plurality of goals." All of the above features are practical applications limited to the technological arts and produce usefu , concrete, and tangible results.

The Office Action further alleges that "The word 'associated' is undefined and it is unclear whether this word limits the claims to statutory subject matter. (Pages 3-4, pa agraph 7.) The Office Action alleges that:

> The word "associated" is undefined and it is unclear what this phrase has to do
> with the invention beyond a vague 'association' with it. Is the association a close
> one where the goal is the "training objective", or is it a loose one where they were
> simply made or considered at the same time...or even just some me ital
> association.

Applicant respectfully disagrees. In accordance with MPEP § 2111.01, the words o ˙the claim must be given their plain meaning unless Applicant has provided a clear defini ion in the specification. For example, a plain meaning of "associate" is "following or acc(mpanying; concomitant." (The American Heritage College Dictionary, Third Edition, Hough on Mifflin Company.) The Office Action has failed to apply the plain meaning of "associate" n order to interpret the claims. Additionally, the specification discloses embodiments that provi le training applications, e.g., the GBS training application as shown in Figure 8. Referring to 1 ie claimed invention of claim 1, the Goal-Based Scenario (GBS) training application may supp rt a "goal being associated with a training objective of a student."

In regards to claim 10, the Office Action alleges that "'motivation' is a hum an thought and the inclusion of it does not make the invention statutory." (Page 4, paragraph 8.) However,

-12-

claim 10, includes "logic that evaluates the progress toward the goal and provides fee dback that

further **motivates** accomplishment of the goal for use in the presentation". (Empha is added.)

The feature does not include the word "motivation" (which the Office Action constru s as being

"a human thought") but does include the word "motivates", which has a common meaning of

"impel." (The American Heritage College Dictionary, Third Edition, Houghton Mifflin

Company.) Claim 10 is directed to an invention that "motivates accomplishment o `the goal"

and is not directed to human thought.

The Office Action further alleges that Applicant cites no specific results to define a

useful, concrete, and tangible result and does not specify the associated practical appli ation with

the kind of specificity that the Federal Circuit requires. (Page 6, paragraph 13.) However, as

previously discussed, the claimed invention (e.g., independent claims 1, 10, 19, 28, ; 7, and 38)

provide useful, concrete, and tangible results with associated practical applications that are

consistent with the specificity affirmed in the *AT&T v. Excel Communications, Inc.* de :ision.

The Office Action further alleges (Page 7, paragraph 15):

> Accordingly, the Examiner finds that Applicant manipulated a set of abst act
> "goals" to solve purely algorithmic problems in the abstract i.e., what kind of
> "goal" is used? Algebraic word problems? Boolean logic problems? Fuzzy lc gic
> algorithms? Probabilistic word problems? Philosophical ideas? Even va ;ue
> expressions, about which even reasonable persons could differ as to t eir
> meaning? Combinations thereof?

Referring to claim 1, the claimed invention is directed to a "goal being associated with a training

objective of a student." The goal is not associated with an algebraic word problem, a Boolean

logic problem, a fuzzy logic algorithm, a probabilistic word problem, a philosophica idea, or a

vague expression. The Federal Circuit, in its *AT&T v. Excel Communications, Inc.* decision,

affirms that a claimed invention contains statutory subject matter if the claimed invention, as a

Amendment dated October 26, 2005   U.S.S.N. 09/887 824
In Response to Final Office Action mailed 07/27/05   005222.0(145

whole, produces a tangible, useful result. The Court comments on the dissent in *Diamond v.*

Diehr (50 USPQ2d 1447, 1453 (Fed. Cir. 1999). Emphasis added.):

> Despite the almost twenty years since Justice Stevens wrote, these concerns remain important. His solution was to declare all computer-based programming unpatentable. That has not been the course the law has taken. Rather, it is now clear that computer-based programming constitutes patentable subject matter so long as the basic requirements of 101 are met. Justice Stevens's concerns can be addressed within that framework.
>
> His first concern, that the rules are not sufficiently clear to enable reasonable prediction of outcomes, should be less of a concern today in light of the refocusing of the 101 issue that Alappat and State Street have provided. His second concern, that the ambiguous concept of "algorithm" could be used to make any process unpatentable, can be laid to rest once **the focus is understood to be not on whether there is a mathematical algorithm at work, but on whether the algorithm-containing invention, as a whole, produces a tangible, useful result.**

The claimed invention in claims 1-54, as a whole, produces tangible, useful results. For example,

the claimed invention in claim 1 creates a presentation supporting a goal that is associated with a

training objective of a student by integrating information that motivates accomplishment of the

goal, evaluating the progress toward the goal, provides feedback to the student, and adjusts

feedback based on the progress of the student. The created presentation produces results that are

useful, concrete, and tangible.

The Office Action further alleges that Applicant's word "goal" is simply an abstract

construct that does not limit the claims to the transformation of real world data. (Page 8,

paragraph 20.) However, independent claims 1, 10, 19, 28, 37, and 46 include "the goal being

associated with a training objective of a student" and thus clearly claim the kind of goal being

used. Moreover, claims 1, 19, and 37, which are directed to computer-implemented methods, are

directed to statutory subject matter in accordance with MPEP 2106 (IV)(B)(2)(b), which affirms

that (Emphasis added.):

To be statutory, a claimed computer-related process must either: (A) result in a physical transformation outside the computer for which a practical application in the technological arts is either disclosed in the specification or would have been known to a skilled artisan (discussed in i) below), **or** (B) be limited to a pract cal application within the technological arts (discussed in ii) below).

Claims 1, 19, and 37 are limited to practical applications, as discussed above.

The Office Action further alleges that while the "system" recitals in the pr ambles of claims 10-17, 28-36, and 46-54 make the claims ostensibly drawn to be "apparatus" c aims, they are insufficient to limit the claims to statutory subject matter. (Page 9, paragraph 22.) However, claim 10 includes the features of "logic that receives a goal, **the goal being associa :ed with a training objective of a student**" and "logic that evaluates the progress toward th : goal and provides feedback that further motivates accomplishment of the **goal for u :e in the presentation**". (Emphasis added.) Independent claim 10 is directed to <u>useful, co: crete,</u> and <u>tangible</u> results. Similarly, independent claim 28 includes the features of "logic th it presents information indicative of a goal, the goal being associated with a training objective of a student" and "logic that integrates information that motivates accomplishment of the goal in : simulated environment for use in the presentation". Similarly, independent claim 46 includes t ie features of "logic that receives indicia representative of a plurality of goals into a model, the ·ilurality of goals being associated with a training objective of a student" and "logic that integrates information that provides assistance with achieving the plurality of goals into a tuto: for use in the presentation". Claims 11-18, 29-36, and 47-54 depend from claims 10, 28, anc 46. Thus, claims 10-18, 28-36, and 46-54 are directed to statutory subject matter.

For at least the above reasons, Applicant requests reconsideration of claims 1-17 and 19-54.

-15-

Amendment dated October 26, 2005   U.S.S.N. 09/887 324
In Response to Final Office Action mailed 07/27/05   005212.0C 145

Claim Rejections - 35 U.S.C. § 112

Claims 1-54 are rejected by the Office Action under 35 U.S.C. 112. The Office Action alleges that claims 1-54 are rejected under 35 U.S.C. 112, first paragraph "because current case law (and accordingly, the MPEP) require such a rejection if a 101 rejection is given".

As discussed above, claims 1-54 are directed to statutory subject matter under 35 U.S.C. § 101. Thus, Applicant requests reconsideration of claims 1-54.

Claims 1-54 are rejected by the Office Action under 35 U.S.C. 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter with applicant regards as the invention.

The Office Action specifically alleges that "The word 'associated' is undefine l and it is unclear whether the word limits the claims to statutory subject matter." (Page 11, paragraph 27.) In accordance with MPEP § 2111.01, the words of the claim must be given their pla n meaning unless Applicant has provided a clear definition in the specification. For example, a plain meaning of "associate" is "following or accompanying; concomitant." (The American Heritage College Dictionary, Third Edition, Houghton Mifflin Company.) The Office Action h is failed to apply the plain meaning of "associate" in order to interpret the claim. Applicant respectively submits that claims 1-54 is definite and distinct in claiming the subject matter that Applicant regards as the invention in light of the plain meanings of the words. Applicant requests reconsideration of claims 1-54.

Claim Rejections - 35 U.S.C. § 102

Claims 1-6, 10-15, 19, 28, 37, 38, and 46 are rejected under U.S.C. 102(t) as being anticipated by U.S. Patent No. 5,987,443 (Nichols).

-16-

Nichols has an effective date of December 22, 1998 as shown on the front page of the

granted patent. Moreover, the present patent application claims priority to patent applications

09/219,479, 09/219,481, and 09/221,608 as claimed in the filed Declaration. (A copy of the

Declaration, as retrieved from PAIR, is attached to this paper.) Thus, the effective date of the

present application is also December 22, 1998. Consequently, Nichols <u>cannot</u> be considered as

prior art. Applicant requests reconsideration of claims 1-6, 10-15, 19, 28, 37, 38, and 46.

CONCLUSION

All objections and rejections have been addressed. Hence, it is respectfully submitted that

the present application is in condition for allowance, and a notice to that effect is earnestly

solicited.

Respectfully submitted,

Date: October 26, 2005

Kenneth F. Smolik
Registration No. 44,344
BANNER & WITCOFF, LTD.
10 S. Wacker Drive, Suite 3000
Chicago, IL 60606-7407
Telephone: 312-463-500(·
Facsimile: 312-463-500

-17-